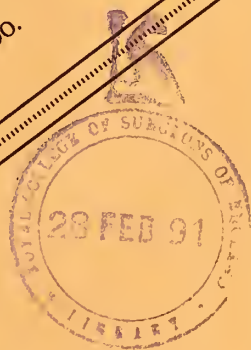


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VICTORIA.

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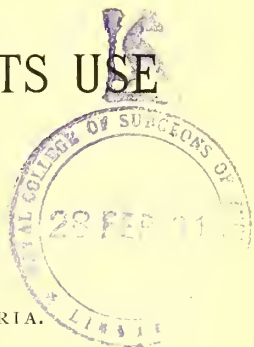


# ON ICHTHYOL AND ITS USE

IN

Medicine and Surgery.

By A. MUELLER, M. D.,  
OF YACKANDANDAH, VICTORIA.



The valuable remedy I herewith propose to bring under the notice of my Australian colleagues, though introduced into the German medical practice by Unna, in 1883, and since then admitted into the German Pharmacopœia, appears to be but little known as yet to English practitioners. As its uses are manifold, and its beneficial effects, especially in certain hitherto intractable forms of disease, far superior to anything previously employed to combat with them, my desire to procure for the remedy a more extended use in Australia needs no apology.

Ichthyol is obtained by distillation from a bituminous mineral, containing large quantities of fossil-fish, hence the name given to it. The raw oil is then treated with concentrated sulphuric acid, in certain proportions, and the mixture neutralized either with potassium sodium, ammonicum, or lithium, the result being either one or the other of the preparations in use in Germany under the names of kalium, natrium, ammonium, and lithium sulpho-ichthyolicum, rather longwinded appellations, which in English might be shortened into potassium, sodium, &c., ichthyolate. According to Professor Baumann and Dr. Schotten, the raw oil contains: carbon, 77.25; sulphur, 10.72; hydrogen, 10.52; nitrogen, 1.10. The

analysis of sodium ichthyolate gives: carbon, 55.05; hydrogen, 6.06; sulphur, 15.27; sodium, 7.78; oxygen, 15.83. All these preparations are soluble in water, some solutions, however, being cloudy and making a slight resinous sediment. Perfect solution is effected in a mixture of alcohol and ether, but for all practical purposes the solution in water suffices. The *Ichthyol-Gesellschaft*, Cordes, Hermann and Co., Hamburg, are the sole manufacturers. As it is not very prepossessing either in odour or in taste, it is supplied for internal use in form of pills (sugar-coated), and capsules, most elegantly got up in watertight enamelled tin boxes. For lotions, ointments, &c., it is supplied in tins of various sizes, faultless in form. The firm likewise supplies ichthyol plaster and ichthyol lint, for the dressing of wounds, and likely to be largely used in military practice.

The therapeutic effects of ichthyol must be ascribed to a peculiar close combination between sulphur and carbon, introducing both elements into the system in a pure, and at the same time, soluble form. They consist, briefly stated, in a contraction of congested and abnormally distended capillaries. Wherever such congestion and consequent distention exists, be it active or passive, the beneficial action of ichthyol becomes almost immediately manifest. It is only by bearing this in mind, and by considering capillary congestion in one form or the other one as accompanying the most heterogenous diseases, in fact, as frequently being the disease we have to treat, that we can understand the efficacy of ichthyol against numerous affections that have no relation whatever to each other, and between which, barring the congestion of capillaries, it would be difficult to find a single feature of similarity or analogy.

In giving some of my own experiences with the remedy, I should be afraid of appearing in the light of a medical *Münchhausen*, or worse still, in that of a quack, recommending a universal remedy for all the ills human flesh is heir to, if these experiences were

not backed up, and had not been surpassed by men of European fame, such as Unna and von Hebra, the great dermatologists, Professor Schweniger and Ziegler, of Berlin, von Nussbaum, of Munich, Drs. Acherman-Weimar, Lorenz, and many others both in and out of Germany.

As will be anticipated from the foregoing statements, ichthyol is a capital remedy in skin diseases, and its applicability extends over the whole range of them, from simple roseola and eczema up to psoriasis and lepra. It combines excellently with simple ointment, lard, and especially with lanolin, and I prescribe it in from 5 % to 15 and 20 % proportions, at the same time giving it internally in doses of from 3 to 10, 12 and 15 pills, or a corresponding number of capsules, and reducing the doses or suspending the use of the drug for a time, when it begins to cause diarrhœa, which with many patients does not occur at all. There is not the least discomfort accompanying its internal administration; on the contrary, the appetite, with very rare exceptions, is stimulated, and the *patient gains in weight*. With regard to the external use of the drug, either in form of lotion or ointment, it is necessary to observe that its resinous ingredients coat the skin and make it sticky, and that to ensure the greatest possible efficacy the parts must be washed every night with warm water and soap, and if the area of disease is not too extended, rolled up in ichthyol wadding. In illustration a few cases:—

J. B., a farmer, æt. 60, who had repeatedly consulted me on account of enormous varicosity of both legs, was brought in from the country with one of them greatly swollen and extremely painful, thickly covered with eczema and having, moreover, two ulcers over the tibia of the size of a sixpence each, apparently in rapid course of enlargement. As he had had repeated rigors, and his temperature was over 100°, I was afraid of phlebitis and abscess, and therefore applied immediately four dozen leeches, to be followed

by bathing in warm water and a stiff linseed meal poultice. Though the bleeding was profuse, and the swelling slightly reduced, the leg, on the following morning, was still extremely painful, and could not be moved in bed by patient himself, whilst my handling it caused him to sing out. A soft elastic cotton bandage was now soaked in a 15 % ichthyol lotion, and applied as tightly to the leg as patient could bear. The leg was placed on gutta-percha and a pillow outside the blankets, and directions were given to keep the bandage constantly wet with the lotion, and after wetting it roll the gutta-percha round it. The improvement which was effected by the treatment within 24 hours was truly marvellous when compared with any other mode that could have been adopted. To my own and the patient's surprise the violent pain was all but gone, the swelling greatly reduced, and the angry bluish colour of the eczema had changed to a faint red. In spite of the latter the skin had become wrinkly, and was discharging a clear watery liquid. When, on the third day after commencing the ichthyol treatment, I went to see my patient I found him up, dressed, and able to work about with the aid of a stick. He left for home on the fourth day, directed to walk as little as possible, keep the leg well bandaged in a horizontal position, and anoint it twice a day with a 10 % ichthyol ointment. I heard no more of him, but saw him again about a month after he had left. The eczema, sometimes so troublesome in such cases, was completely cured, the ulcers had healed, and the leg was sounder than it had been for years.

Some month ago I attended Mrs. C., æt. 54, suffering from that odious affection, pruritus pudendorum. Alteratives internally and local applications of strong hydrocyanic acid ointments with morphia, and finally with cocaine, gave but temporary relief. The poor woman suffered agonies, especially at night, and at each visit overwhelmed me with supplications for a more speedy cure and des-

criptions of her sufferings. She had the fixed idea that a neighbour with whom she had quarrelled, and who had expressed the pious wish that she might never have a day's health, had been instrumental in causing her affliction. By a strange coincidence, or the "stern Nemesis of fate," this neighbour, a Mrs. L., was overtaken by the same complaint, and I thus had two unfortunates on my hands whom to treat was by no means an unmixed pleasure. Casting about for some other remedy more efficient than those already tried with but indifferent success I fell back on ichthyol, and determined to give it a fair and full trial. I gave it internally in large doses, had the parts well anointed with a 5 % ointment, and ordered a warm hip bath to be taken every night at bed-time. Under this treatment, continued for a fortnight, a gradual but steady improvement took place, and both unfortunates were cured simultaneously.

Mr. K., æt. 70, had suffered for some years from what he thought to be the itch, but which on examination I found to be prurigo. It troubled him especially at the turn of the seasons, in spring and autumn, and as the itching all over the body was then almost unbearable his health, owing the want of sleep, became seriously impaired. He had been under treatment several times, and only sent for me as a last resource, scarcely expecting that I would give him any relief. I put him under the ichthyol treatment, with warm baths at bed-time, and on the very first night after using the ointment he was able to sleep several hours. The itching, and with it the eruption, disappeared gradually within a fortnight.

In lesions of the skin by heat, both burns and scalds, ichthyol is likewise superior to any other remedy I know of. It does not prevent blistering, and is rather severe at first when applied to the raw surface, but the addition of a little pulv. opii. to a 10 % ointment does away with this objectionable feature. The wounds require dressing far less frequently, whilst the new skin grows with



surprising rapidity. I have quite lately treated a case of extensive burns, caused by the explosion of a kerosene lamp. Both hands, a great part of the face, the neck, chest, including breasts, and the upper part of the abdomen were one raw surface when I was called in by Mrs. P., five days after the occurrence. I dressed the parts at once with an 8 % ichthyol ointment, to which subsequently, as it burned rather much, some pulv. opii. was added. In less than three weeks the whole of this large surface was skinned over again with the exception of the left breast, of which a large flap of skin had sloughed away entirely.

Where the skin and the subcutaneous cellular tissue are both congested, the striking effects of the ichthyol, locally applied, are still more manifest. This is especially the case in erysipelas. Very soon after local application the swelling begins to subside, the skin becomes wrinkled and emits watery liquid through the pores, as in perspiration. At the same time the disease becomes stationary, and makes no further encroachments on healthy tissue. Ichthyol internally or, if necessary, some other medication, must of course accompany the local treatment.

That in traumatic erysipelas and in malignant, phlegmonous cellulitis the action of the drug is equally beneficial in arresting the progress of the disease and rendering the absorbed poison apparently innocuous, will probably provoke an incredulous smile with most readers, yet the testimony of my countrymen at home, and my own experience, place this gratifying fact beyond all doubt. I have also used the remedy in two cases of carbuncle with the effect of greatly reducing the area of inflamed tissue, relieving the pain, and converting the hard, bluish centre, apparently on the point of mortifying, into a mere futruncle. I use strong lotions and ointments containing from 25 % to 50 % of ichthyol in such cases, and in very bad ones should apply the drug pure. It is hardly necessary to state that inflammatory swellings arising from



contusions, sprains, fractures and dislocations are both prevented and cured by ichthyol. It becomes to a surgeon who has once adopted it an absolutely indispensable remedy.

The most pronounced success, however, this new addition to our *materia medica* has achieved is in the treatment of rheumatism and gout. The effect of a 25 per cent. ointment on a painful, swollen and immovable joint must be seen to be believed. Pain and swelling frequently disappear in less than twenty-four hours and movability is restored. In chronic rheumatism only the local treatment is frequently sufficient, in acute it might not be safe to trust to it alone. Still more unique, though less rapid is its efficacy in gout, especially in that intractable form known as arthritis deformans.

Here I can speak from my own recent and personal experience. For some years past I had suffered from stiffness and soreness in both hip joints, preventing me from walking any distance; but as one of them had been dislocated many years ago and I had done all my travelling in a large mountainous district for over thirty years on horseback, I attributed the stiffness to these antecedents, not suspecting actual disease, until I became quite unable to walk up a steep hill or a flight of steps, and the joints began to emit a suspicious cracking noise. When at the same time the knuckles of my thumbs and other finger joints began to get painful and enlarged visibly, the diagnosis of arthritis deformans was unavoidable, and the insidious enemy had to be met and conquered if possible, or at all events prevented from further encroachments. After revising the dietary scale and reducing my allowances of meat and wine to a minimum, I commenced taking ichthyol pills, from three up to twelve and fifteen, twice a day. I have now taken the remedy for a month, and though I do not flatter myself to be cured, the improvement it has produced is a marked one. I can walk and mount my horse without pain, and the enlarged

knuckles have become pale and are quite free from tenderness on pressure. Another effect, showing that the remedy has gone to the root of the mischief, is the absence of an uncomfortable tenderness in the liver. I had felt this four years and could only remove it for a time by stimulating the bile secretion. Now I am almost free from it, and can look over my right shoulder without feeling that I have a liver. One of the chief advantages of the remedy is the total absence of all discomfort under a prolonged use. Its presence in the stomach is only felt by an increased appetite. It stimulates the action of the liver and of the bowels, and for abdominal engorgements is no doubt *the* remedy *par excellence*. Its action on the portal circulation is similar to that of sulphur, but much more intensified, for the peculiar combination of sulphur and carbon, to which its efficacy must be ascribed, is perfectly soluble, and enables us to saturate the system with sulphur, of which, when administered in substance only a very small portion can enter the circulation. In removing passive congestion of the abdominal organs, so apt to occur in our climate, and in thus stimulating the sluggish portal circulation, ichthyol sweeps that Augean stable, from which so much discomfort and disease is apt to arise, and its stimulating, vitalizing and quasi rejuvenating effects on the system can only thus be explained. —

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